

REMARKS

Claims 1-11 stand rejected under 35 USC §112, second paragraph, as being indefinite. Specifically, the Examiner finds that the limitation “and/or” in line 5 of claim 1 renders the scope of the claim unascertainable.

Claim 1 has been amended to claim the key elements in the conjunctive and in a manner which is believed to overcome the indefiniteness rejection. However, applicant wishes to make the following comments which point out the problem solved by the invention recited in claim 1, which comments also serve to distinguish over the applied prior art, as will be discussed below.

The type of fault which is guarded against in the present invention is a manufacturing fault or a materials fault which results in ratchet teeth being softer and therefore less durable, than is intended by the design specification. In theory, therefore, it would be possible to achieve the objective by having identical ratchet wheels obtained from different sources. Theoretically, this would reduce the statistical risk of both wheels having a fault. However, the inventor believes that the reduction in the statistical risk is not sufficient if the two ratchet wheels are manufactured by different firms using identical base materials and identical treatment methods. It is for this reason that claim 1, as amended, requires that the “ratchet members are formed from respective materials having at least one of different chemical properties and different physical properties”. Thus, in order to achieve the risk reduction which is considered to be appropriate for aircraft use, the inventor requires that the “first and second ratchet members” are either manufactured from base materials of different specification (chemical properties) or, alternatively, are manufactured from materials of the same base specification, but treated, for example, heat treated or surface hardened, using different techniques (to produce different physical properties).

Claims 1-6 and 8 stand rejected under 35 USC §102(b) as anticipated by Quigley (U.S. 6,575,279).

The Examiner cites Quigley as disclosing a no-back device (Fig. 1) comprising a plurality of ratchet members (22) connectable to a rotating member, pawls (25), interlocking means (40), projections and indentations (Fig. 3, 40, 41). With respect to the limitation that the ratchet members are formed from respective materials having different chemical and/or physical properties, the Examiner finds that the prior art discloses discrete members that would inherently exhibit distinct properties, such as point, linear,

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planar and three dimensional defects, in addition to those qualities caused by processing, that yield different physical traits.

This rejection is respectfully traversed and reconsideration requested in view of the amendment to claim 1, the foregoing remarks, and the comments which follow.

Quigley is completely silent with regard to the problem faced by the inventor and the solution to that problem as now clearly recited in amended claim 1. Quigley does not disclose or suggest the use of materials having different chemical or physical properties for the respective ratchet members which provide distinctly different performance with respect to latent failure. Quigley makes the statement, in column 4, lines 24-26, "that certain specific design features could be incorporated into one or more of the arcuate [ratchet] sections and not in the others". However, this comment is not directed to features effecting the performance life of the parts. Thus, this suggestion for the present invention does not come from Quigley, but only from the inventor.

Claim 6 has also been amended in a manner similar to claim 1 to eliminate the objectionable "and/or" terminology.

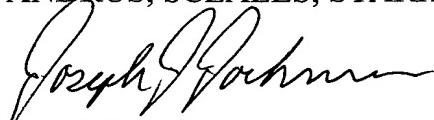
Claims 4 and 7 have been amended to eliminate the disjunctive word "or".

Finally, claim 3 has been amended to eliminate a potential antecedent basis problem.

The claims, as amended, are believed to overcome both the indefiniteness and anticipation rejections and, as a result, claims 1-11 are now believed to be in condition for allowance.

Respectfully submitted,

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